

IN THE CLAIMS:

1.-16. (Canceled)

17. (New) A distance measuring apparatus for measuring a distance from an imaging element to an object by imaging the same electronically so as to optically form an image of the object on the imaging element through a lens, comprising:

a plurality of sets of light masking members having light passing openings, respectively, the plurality of sets of light masking members being capable of being selectively arranged between the object and the lens;

means for passing light from an object to be distance-measured through the openings of the plurality of sets of light masking members to project images of the object to be distance-measured onto the imaging element;

means for detecting amounts of displacement of the projected images on the imaging element; and

means for obtaining a distance of the object to be distance-measured on the basis of detected amounts of displacement.

18. (New) A distance measuring method of measuring a distance from an imaging element to an object by optically taking in an image thereof by the imaging element, comprising:

preparing a plurality of sets of light masking members which have light passing openings different in position from each other, respectively;

preparing a displacement-to-distance conversion equation obtained from

information indicating a correspondence relationship between distance values from the object to the imaging element and amounts of displacement of the object;

passing light from an object to be distance-measured through the openings of the plurality of sets of light masking members to project images of the object to be distance-measured to an image forming plane of the imaging element;

detecting amounts of displacement of the projected images on the image forming plane; and

obtaining a distance to the object to be distance-measured by substituting detected amounts of displacement into a displacement-to-distance conversion equation.